

Before the  
**FEDERAL COMMUNICATIONS COMMISSION**  
Washington, D.C. 20554

In the Matter of	)	
	)	
	)	
GARMIN INTERNATIONAL, INC.	)	WT Docket No. 01-339
	)	
Amendment of Sections 95.193(a) and 95.631(d)	)	
to Authorize Manufacture, Sale and Use of GPS	)	RM - 10070
Transmission Enhanced Family Radio Service	)	
Units	)	
	)	
Amendment of Section 95.193 (a), 95.193 (b),	)	
and 95.631(d) of the Commission’s Rules	)	
Governing Permissible Communications in	)	
the Family Radio Service	)	

To the Commission:

**COMMENTS**  
**OF**  
**GARMIN INTERNATIONAL, INC.**

Garmin International, Inc. (“Garmin”), pursuant to the Notice of Proposed Rulemaking issued in the above-referenced proceeding<sup>1</sup> (“NPRM”) hereby submits these Comments in support of the proposed rules to allow Family Radio Service (“FRS”) units to transmit a digital data emission and communications containing location information. Garmin applauds the Commission for proposing this change to the rules as it will provide for a very beneficial, new and incidental use for the highly successful FRS. Adopting the proposed rules will enhance safety by providing for the

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1. *67 Fed. Reg.* 1710 (Jan. 14, 2002)

quick and efficient location of children and adults who become lost, who become separated from their group, who are injured, or who are facing some sort of emergency or near emergency situation,<sup>2</sup> while assuring that the enhanced FRS operations will not cause any harmful interference to other users operating on FRS or other frequencies.

1. As the Commission is aware, the use of FRS units has become extremely popular. There is hardly a venue – from ski slopes, to amusement parks, to outdoor activities in parks and wilderness areas, to shopping malls – where FRS radios are not present. The location enhancement to FRS units as proposed greatly adds to the beneficial use of these radios.<sup>3</sup> Furthermore, there is no detrimental impact from the proposed operations because the technical parameters proposed will assure there is no harmful interference to other users. To put it in the vernacular, adoption of the proposed rules creates a “win-win” situation for both the Commission and the public interest.

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2. For some “Truly Amazing Stories” of how GPS has helped in survival, rescue, and other situations, *see, e.g.,* <http://www.garmin.com/whatsNew/adventures.html>

3. The NPRM discusses Comments by Mr. William C. Houlne (“Houlne”) stating that the Garmin proposal fails to provide any “meaningful enhancement” to FRS. Houlne Comment at 1. At the same time, however, Houlne states, as noted by the Commission, that the incorporation of GPS with FRS is a very desirable utility and that such a marriage would make the FRS an extremely viable tool regarding public safety. *See* NPRM at ¶6 and n.30; *see also* Houlne Comment at 3.

## **THE COMMISSION SHOULD NOT SPECIFY STANDARDS**

2. At paragraph 10 of the NPRM, the Commission discusses certain methods and standards for incorporating location information with FRS units. Garmin agrees with the Commission that it is not necessary or desirable to specify methods or standards for providing the location services. This is especially true when there is no discernable reason to impose standards. As a manufacturer of equipment, Garmin is well aware of the constraints placed upon equipment manufacturers when standards and methods are specified. Such constraints can inhibit the development of new and innovative technologies, and can lead to increased costs for both the manufacturer and the consumer. So long as a technology operates within the technical parameters specified by the Commission, it should be the marketplace that decides which of the various location methods is most desirable and in the public interest.

## **ADDITIONAL RULE PROPOSALS**

3. In its NPRM, the Commission invites comment concerning additional rule provisions or modifications that would inure to the public benefit. As one of the leading designers and manufacturers of GPS devices for the aviation, marine, automotive and recreational markets, and having spent significant time and resources on developing units incorporating GPS technology with FRS units,<sup>4</sup> Garmin believes that the term “manual key press” as used in § 95.193(b) of the proposed rule modifications is unnecessarily restrictive. Digital data transmissions meeting the other requirements of the proposed rule modifications should be permitted so long as they are initiated by

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4. Garmin was granted a Waiver of the FRS rules to develop and market a GPS enhanced FRS

some intentional action of the user as opposed to an automated transmission. For example, in the future it may be practicable for voice recognition technology to permit a user of an FRS unit to cause the unit to transmit its location by simply speaking a specified command. Garmin is not aware of any policy reason for making a “manual press” the exclusive means for initiating the transmission of location data, or for excluding other types of manual user interfaces such as rotary buttons, touch screens, and voice activation. Accordingly, Garmin respectfully requests that the requirement in the proposed rule modifications that digital data transmissions “must be initiated by a manual key press” be modified to require that digital data transmissions “must be initiated by a manual action or command of a user.” Proposed rule language is contained in the Appendix attached hereto.

4. Furthermore, Garmin believes that the rules should also be modified to provide for the manual interrogation of *specific* location enhanced FRS units by a manual action or command of a user. As the NPRM proposes, an FRS unit can transmit digital location information, provided that: (a) the digital transmission does not exceed one second out of a ten second period; and, (b) the transmission is initiated by a manual action of a user. Garmin respectfully requests that the “manual action or command of the user” be available to include the interrogation of other specific location enhanced FRS units. This operation would allow a person utilizing a location enhanced FRS unit to determine the location of a member of his or her calling group. Once a person’s unit is interrogated, it would transmit its position in response to the manual interrogation in accordance with the technical specifications proposed by the Commission in the NPRM. By allowing one unit to manually interrogate another, location enhanced FRS units become even more practical safety

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unit. Garmin International, Inc., *Order*, 15 FCC Rcd 19143 (WTB PSPWD 2000).

devices for emergency situations, especially where a person is unconscious or unable, for some reason, to manually command his or her unit to transmit his or her location. Such a feature would address some of the concerns raised in the Houlné Comment concerning the feasibility and importance of GPS enhanced FRS units.

5. This proposal for manual interrogation of a calling group's unit will not cause harmful interference on FRS channels. Both the interrogating unit and the unit receiving a request to send its position will be limited by the same restrictions imposed on all FRS units sending digital location information – no unit can send, or request, location data more frequently than once every ten seconds and the data transmission may last no longer than one second. This proposal would not permit or encourage any sort of “tracking” of any location enhanced unit without the specific consent of the user. First of all, each unit is capable of disabling the GPS position data transfer. Second, if the GPS position data transfer is enabled, because a calling group is established by radios being on the same channel and using the same squelch code, the 532 different combinations possible<sup>5</sup> establish an adequate level of security. This level of security is created because only a receiving unit set to the same channel and squelch code, and with the same unit/user I.D. as requested by the interrogating unit, will respond. Third, under the rules proposed, any transmission of location data can only be transmitted for no more than one second out of a ten second period. Proposed rule language to implement this interrogation capability is contained in the Appendix attached hereto.

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5. (14 channels x 38 CTCSS tones = 532 combinations).

## **CONCLUSION**

Garmin believes that the NPRM, and the suggested additional revisions contained herein, represent a significant advancement in making the ubiquitous FRS more beneficial to the public by enabling it to employ state of the art technology to provide recognized location capabilities. This benefit is accomplished without creating any interference with, or interruption of, the primary voice

communications for which the FRS service was originally intended. For these reasons, Garmin fully supports the NPRM and urges the Commission to adopt final rules consistent with these Comments.

Respectfully submitted,

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# APPENDIX

## SUGGESTED REVISIONS TO PROPOSED RULES (Additions Shown Underlined and in Bold Deletions Shown ~~Lined Through~~)

2. Section 95.193 is proposed to be amended by revising paragraphs (a) and (b) to read as follows:

### **§§ 95.193 (FRS Rule 3) Types of communications.**

(a) You may use an FRS unit to conduct two-way voice communications with another person. You may use an FRS unit to transmit one-way voice or non-voice communications only to establish communications with another person, send an emergency message, provide traveler assistance, provide location information, make a voice page, or to conduct a brief test.

(b) The FRS unit may transmit tones to make contact or to continue communications with a particular FRS unit. If the tone is audible (more than 300 Hertz), it must be transmitted continuously no longer than 15 seconds at one time. If the tone is subaudible (300 Hertz or less), it may be transmitted continuously only while you are talking. The FRS unit may transmit digital data containing location information **or digital data requesting location information from another specific FRS unit.** Digital data transmissions shall not exceed one second, must be initiated by a manual key press, **action or command of a user,** and shall be limited to no more than one digital transmission within a ten-second period. **An FRS unit receiving an interrogation request may automatically respond with its location, provided the data transmission shall not exceed one second, and no more than one data transmission shall occur within a ten second period.**

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